

# Work Order ID 94537

December-19-12 11:39:51 AM

**\*94537\***

Page 1

Item ID: D350-578-031

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Wearplate

Start Date: 12/13/12 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 1/11/13 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: MLS

Date: 12-12-12

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description  | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|---|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| <b>Draw Nbr</b>                | <b>Revision Nbr</b>   |                      |         |        |              |               |               |                  |                |
| DSI9429                        | RevA  |                      |         |        |              |               |               |                  |                |
| IIN D350-578                   | RevA  |                      |         |        |              |               |               |                  |                |
| 100                            |   | 0.00                 |         |        |              |               |               |                  |                |
| <b>*100*</b>                   | DOCUMENT CONTROL  |                      |         |        |              |               |               |                  |                |
| DC                             | Memo  | 0.00                 |         |        |              |               |               |                  |                |
| Document Control               | Photocopy bluefile and type labels per PPP D350-578-031 and DSI9429 |                      |         |        | CHG          |               |               |                  |                |
|                                | 001   |                      |         |        |              |               |               |                  |                |
| 105                            | Pick Kit  | 0.00                 |         |        |              |               |               |                  |                |
| <b>*105*</b>                   |   |                      |         |        |              |               |               |                  |                |
| Packaging                      | Memo  | 0.00                 |         |        |              |               |               |                  |                |
| Packaging                      |   |                      |         |        |              |               |               |                  |                |

*Handwritten:* 13-1-30

*Handwritten:* MLC 13-01-30

*Handwritten:* 1

*Handwritten:* 13/1/30  
DAS 06  
13/4/19

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

|  |      |      |     |   |                      |   |                |              |              |  |  |
|--|------|------|-----|---|----------------------|---|----------------|--------------|--------------|--|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ |      |      |     | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Work Order Update <input type="checkbox"/> |                      | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |                |              |              |  |  |
| <b>Root Cause</b>  | Date | Step | Qty | Description of work order update<br>or Non-conformance  | Initial<br>Chief Eng | Action<br>Description   | Sign &<br>Date | Verification | QC Inspector |  |  |
| Doc/Data <input type="checkbox"/>                            |      |      |     |   |                      |   |                |              |              |  |  |
| Equip/Tooling <input type="checkbox"/>                       |      |      |     |   |                      |   |                |              |              |  |  |
| Operator <input type="checkbox"/>                            |      |      |     |   |                      |   |                |              |              |  |  |
| Material <input type="checkbox"/>                            |      |      |     |   |                      |   |                |              |              |  |  |
| Setup <input type="checkbox"/>                               |      |      |     |   |                      |   |                |              |              |  |  |
| Other <input type="checkbox"/>                               |      |      |     |   |                      |   |                |              |              |  |  |
| Process <input type="checkbox"/>                             |      |      |     |   |                      |   |                |              |              |  |  |
| Supplier <input type="checkbox"/>                            |      |      |     |   |                      |   |                |              |              |  |  |
| Training <input type="checkbox"/>                            |      |      |     |   |                      |   |                |              |              |  |  |
| Unapproved <input type="checkbox"/>                          |      |      |     |   |                      |   |                |              |              |  |  |

| FAULT CATEGORY  |  |  |   |  |  |   |  |  |  |  |   |
|---|--|--|---|--|--|---|--|--|--|--|---|
| <b>Landing Gear</b><br><input type="checkbox"/> Bending<br><input type="checkbox"/> Centre Not Concentric to O/S<br><input type="checkbox"/> Cracks<br><input type="checkbox"/> Crushed/Crimped<br><input type="checkbox"/> Cuffs<br><input type="checkbox"/> Heat Treat<br><input type="checkbox"/> Inspection Strip in Tube<br><input type="checkbox"/> Ripples in Bend<br><input type="checkbox"/> Torque Waves in Extrusion<br><input type="checkbox"/> Turning Sequence<br><input type="checkbox"/> Wave/Twist in Tube |  |  | <b>General</b><br><input type="checkbox"/> Bend<br><input type="checkbox"/> BOM/Route<br><input type="checkbox"/> Broken/Damaged<br><input type="checkbox"/> Burrs<br><input type="checkbox"/> Contamination<br><input type="checkbox"/> Countersink<br><input type="checkbox"/> Cut Too Short<br><input type="checkbox"/> Drill Holes<br><input type="checkbox"/> Drawing<br><input type="checkbox"/> Finish<br><input type="checkbox"/> Folio |  |  | <input type="checkbox"/> Grain<br><input type="checkbox"/> Hardware<br><input type="checkbox"/> Inspection Incomplete<br><input type="checkbox"/> Instructions Incomplete/Unclear<br><input type="checkbox"/> Maintenance<br><input type="checkbox"/> Mislabeled<br><input type="checkbox"/> Misread<br><input type="checkbox"/> Offset<br><input type="checkbox"/> Out of Calibration<br><input type="checkbox"/> Out of Sequence<br><input type="checkbox"/> Outside Dimensions |  |  | <input type="checkbox"/> Ovalized<br><input type="checkbox"/> Over/Under tolerance<br><input type="checkbox"/> Part Incorrect<br><input type="checkbox"/> Part Lost/Missing<br><input type="checkbox"/> Part Moved<br><input type="checkbox"/> Positioned Wrong<br><input type="checkbox"/> Power Loss/Surge |  | <input type="checkbox"/> Pressure/Forced<br><input type="checkbox"/> Temperature/Cure<br><input type="checkbox"/> Weld<br><input type="checkbox"/> Wrong Stock Pulled<br><input type="checkbox"/> Other |

**Work Order ID 94537****\*94537\***

Page 2

December-19-12 11:39:51 AM

Item ID: D350-578-031

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Wearplate

Start Date: 12/13/12 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 1/11/13 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

110

QC4- 100% Inspect kits for completeness

0.00

**\*110\***

QC

Memo

0.00

Quality Control

120

Packaging

0.00

**\*120\***

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D350-578-031 and DSI9429

Location: \_\_\_\_\_

PPP Rev: \_\_\_\_\_

130

QC21- Final Inspection - Work Order Release

0.00

**\*130\***

QC

Memo

0.00

Quality Control

DAS  
06/13/13 2

MJS 13-01-30

13-01-30

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

|   |             |             |   |   |                          |   |                        |                     |   |  |  |
|---|-------------|-------------|---|---|--------------------------|---|------------------------|---------------------|---|--|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____  |             |             |   | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Work Order Update <input type="checkbox"/> |                          | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |                        |                     |   |  |  |
| <b>Root Cause</b>   | <b>Date</b> | <b>Step</b> | <b>Qty</b>  | <b>Description of work order update or Non-conformance</b>  | <b>Initial Chief Eng</b> | <b>Action Description</b>   | <b>Sign &amp; Date</b> | <b>Verification</b> | <b>QC Inspector</b>   |  |  |
| Doc/Data <input type="checkbox"/>   |             |             |   |   |                          |   |                        |                     |   |  |  |
| Equip/Tooling <input type="checkbox"/>  |             |             |   |   |                          |   |                        |                     |   |  |  |
| Operator <input type="checkbox"/>   |             |             |   |   |                          |   |                        |                     |   |  |  |
| Material <input type="checkbox"/>   |             |             |   |   |                          |   |                        |                     |   |  |  |
| Setup <input type="checkbox"/>  |             |             |   |   |                          |   |                        |                     |   |  |  |
| Other <input type="checkbox"/>  |             |             |   |   |                          |   |                        |                     |   |  |  |
| Process <input type="checkbox"/>  |             |             |   |   |                          |   |                        |                     |   |  |  |
| Supplier <input type="checkbox"/>   |             |             |   |   |                          |   |                        |                     |   |  |  |
| Training <input type="checkbox"/>   |             |             |   |   |                          |   |                        |                     |   |  |  |
| Unapproved <input type="checkbox"/>   |             |             |   |   |                          |   |                        |                     |   |  |  |
| <b>FAULT CATEGORY</b>   |             |             |   |   |                          |   |                        |                     |   |  |  |
| <b>Landing Gear</b><br><input type="checkbox"/> Bending<br><input type="checkbox"/> Centre Not Concentric to O/S<br><input type="checkbox"/> Cracks<br><input type="checkbox"/> Crushed/Crimped<br><input type="checkbox"/> Cuffs<br><input type="checkbox"/> Heat Treat<br><input type="checkbox"/> Inspection Strip in Tube<br><input type="checkbox"/> Ripples in Bend<br><input type="checkbox"/> Torque Waves in Extrusion<br><input type="checkbox"/> Turning Sequence<br><input type="checkbox"/> Wave/Twist in Tube |             |             | <b>General</b><br><input type="checkbox"/> Bend<br><input type="checkbox"/> BOM/Route<br><input type="checkbox"/> Broken/Damaged<br><input type="checkbox"/> Burrs<br><input type="checkbox"/> Contamination<br><input type="checkbox"/> Countersink<br><input type="checkbox"/> Cut Too Short<br><input type="checkbox"/> Drill Holes<br><input type="checkbox"/> Drawing<br><input type="checkbox"/> Finish<br><input type="checkbox"/> Folio |   |                          | <input type="checkbox"/> Grain<br><input type="checkbox"/> Hardware<br><input type="checkbox"/> Inspection Incomplete<br><input type="checkbox"/> Instructions Incomplete/Unclear<br><input type="checkbox"/> Maintenance<br><input type="checkbox"/> Mislabeled<br><input type="checkbox"/> Misread<br><input type="checkbox"/> Offset<br><input type="checkbox"/> Out of Calibration<br><input type="checkbox"/> Out of Sequence<br><input type="checkbox"/> Outside Dimensions   |                        |                     | <input type="checkbox"/> Ovalized<br><input type="checkbox"/> Over/Under tolerance<br><input type="checkbox"/> Part Incorrect<br><input type="checkbox"/> Part Lost/Missing<br><input type="checkbox"/> Part Moved<br><input type="checkbox"/> Positioned Wrong<br><input type="checkbox"/> Power Loss/Surge<br><br><input type="checkbox"/> Pressure/Forced<br><input type="checkbox"/> Temperature/Cure<br><input type="checkbox"/> Weld<br><input type="checkbox"/> Wrong Stock Pulled<br><br><input type="checkbox"/> Other |  |  |

# Picklist Print

December-19-12 11:39:50 AM

Page 1

Work Order ID: 94537

Parent Item: D350-578-031

Parent Item Name: Wearplate

Start Date: 12/13/12

Required Date: 1/11/13

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A 09-02-03 new issue DD verified by:JLM

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand  | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|-----------------|-------------|--------------|---------------|----------------|--------|
| <b>AN4-17A</b><br>Bolt          |                        | Purchased     | No          |                     |                  | 105             | Each               | 260.0000        | 12          | 12           |               | 11/20/12       |        |
|                                 |                        |               |             | <u>Location</u>     |                  | <u>Loc Qty</u>  |                    | <u>Loc Code</u> |             |              |               |                |        |
|                                 |                        |               |             | ST357               |                  | 260             |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 122416              |                  | 260             |                    |                 |             |              |               |                |        |
| <b>D3859-041</b><br>Wearplate   |                        | Manufactured  | No          |                     |                  | 105             | Each               | 1.0000          | 2           | 2            |               |                |        |
|                                 |                        |               |             | <u>Location</u>     |                  | <u>Loc Qty</u>  |                    | <u>Loc Code</u> |             |              |               |                |        |
|                                 |                        |               |             | ST500               |                  | 1               |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 84015               |                  | 1               |                    |                 |             |              |               |                |        |
| <b>MS21042L4</b><br>Nut         |                        | Purchased     | No          |                     |                  | 105             | Each               | 5,535.0000      | 12          | 12           |               | 12/30/12       |        |
|                                 |                        |               |             | <u>Location</u>     |                  | <u>Loc Qty</u>  |                    | <u>Loc Code</u> |             |              |               |                |        |
|                                 |                        |               |             | FP001               |                  | 318             |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 122452              |                  | 306             |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 8182                |                  | 12              |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | FP-001              |                  | 12              |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 8182                |                  | 12              |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | GA                  |                  | 231             |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 121444              |                  | 231             |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | ST314               |                  | 3474            |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 119017              |                  | 20              |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 123021              |                  | 954             |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 123248              |                  | 900             |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 123355              |                  | 1600            |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | ST506               |                  | 1500            |                    |                 |             |              |               |                |        |
|                                 |                        |               |             | 123900              |                  | 1500            |                    |                 |             |              |               |                |        |

123360

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

|   |      |      |   |   |                      |   |                |              |   |  |  |
|---|------|------|---|---|----------------------|---|----------------|--------------|---|--|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____  |      |      |   | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Work Order Update <input type="checkbox"/> |                      | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |                |              |   |  |  |
| <b>Root Cause</b>   | Date | Step | Qty   | Description of work order update<br>or Non-conformance  | Initial<br>Chief Eng | Action<br>Description   | Sign &<br>Date | Verification | QC Inspector  |  |  |
| Doc/Data <input type="checkbox"/>   |      |      |   |   |                      |   |                |              |   |  |  |
| Equip/Tooling <input type="checkbox"/>  |      |      |   |   |                      |   |                |              |   |  |  |
| Operator <input type="checkbox"/>   |      |      |   |   |                      |   |                |              |   |  |  |
| Material <input type="checkbox"/>   |      |      |   |   |                      |   |                |              |   |  |  |
| Setup <input type="checkbox"/>  |      |      |   |   |                      |   |                |              |   |  |  |
| Other <input type="checkbox"/>  |      |      |   |   |                      |   |                |              |   |  |  |
| Process <input type="checkbox"/>  |      |      |   |   |                      |   |                |              |   |  |  |
| Supplier <input type="checkbox"/>   |      |      |   |   |                      |   |                |              |   |  |  |
| Training <input type="checkbox"/>   |      |      |   |   |                      |   |                |              |   |  |  |
| Unapproved <input type="checkbox"/>   |      |      |   |   |                      |   |                |              |   |  |  |
| <b>FAULT CATEGORY</b>   |      |      |   |   |                      |   |                |              |   |  |  |
| <b>Landing Gear</b><br><input type="checkbox"/> Bending<br><input type="checkbox"/> Centre Not Concentric to O/S<br><input type="checkbox"/> Cracks<br><input type="checkbox"/> Crushed/Crimped<br><input type="checkbox"/> Cuffs<br><input type="checkbox"/> Heat Treat<br><input type="checkbox"/> Inspection Strip in Tube<br><input type="checkbox"/> Ripples in Bend<br><input type="checkbox"/> Torque Waves in Extrusion<br><input type="checkbox"/> Turning Sequence<br><input type="checkbox"/> Wave/Twist in Tube |      |      | <b>General</b><br><input type="checkbox"/> Bend<br><input type="checkbox"/> BOM/Route<br><input type="checkbox"/> Broken/Damaged<br><input type="checkbox"/> Burrs<br><input type="checkbox"/> Contamination<br><input type="checkbox"/> Countersink<br><input type="checkbox"/> Cut Too Short<br><input type="checkbox"/> Drill Holes<br><input type="checkbox"/> Drawing<br><input type="checkbox"/> Finish<br><input type="checkbox"/> Folio |   |                      | <input type="checkbox"/> Grain<br><input type="checkbox"/> Hardware<br><input type="checkbox"/> Inspection Incomplete<br><input type="checkbox"/> Instructions Incomplete/Unclear<br><input type="checkbox"/> Maintenance<br><input type="checkbox"/> Mislabeled<br><input type="checkbox"/> Misread<br><input type="checkbox"/> Offset<br><input type="checkbox"/> Out of Calibration<br><input type="checkbox"/> Out of Sequence<br><input type="checkbox"/> Outside Dimensions   |                |              | <input type="checkbox"/> Ovalized<br><input type="checkbox"/> Over/Under tolerance<br><input type="checkbox"/> Part Incorrect<br><input type="checkbox"/> Part Lost/Missing<br><input type="checkbox"/> Part Moved<br><input type="checkbox"/> Positioned Wrong<br><input type="checkbox"/> Power Loss/Surge<br><br><input type="checkbox"/> Pressure/Forced<br><input type="checkbox"/> Temperature/Cure<br><input type="checkbox"/> Weld<br><input type="checkbox"/> Wrong Stock Pulled<br><br><input type="checkbox"/> Other |  |  |

# Picklist Print

December-19-12 11:39:50 AM

Page 2

Work Order ID: 94537  
Parent Item: D350-578-031  
Parent Item Name: Wearplate

Start Date: 12/13/12

Required Date: 1/11/13

Start Qty: 1.00

Required Qty: 1.00

~~NAS1149D0463J~~

Purchased No

105 Each 2,063.0000

12

12

Washer

SMB

Location

Loc Qty

Loc Code

FP001

81

122441

81

GA

693

122452

693

ST294

1289

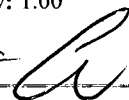

123355

489

123900

800

|       |
|-------|
| _____ |
| _____ |
| _____ |
| _____ |
| _____ |
| _____ |
| _____ |

12/24/12  

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

|  |      |      |     |   |                   |   |             |              |              |  |  |
|--|------|------|-----|---|-------------------|---|-------------|--------------|--------------|--|--|
| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____ |      |      |     | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Work Order Update <input type="checkbox"/> |                   | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div> |             |              |              |  |  |
| <b>Root Cause</b>  | Date | Step | Qty | Description of work order update or Non-conformance   | Initial Chief Eng | Action Description  | Sign & Date | Verification | QC Inspector |  |  |
| Doc/Data <input type="checkbox"/>                            |      |      |     |   |                   |   |             |              |              |  |  |
| Equip/Tooling <input type="checkbox"/>                       |      |      |     |   |                   |   |             |              |              |  |  |
| Operator <input type="checkbox"/>                            |      |      |     |   |                   |   |             |              |              |  |  |
| Material <input type="checkbox"/>                            |      |      |     |   |                   |   |             |              |              |  |  |
| Setup <input type="checkbox"/>                               |      |      |     |   |                   |   |             |              |              |  |  |
| Other <input type="checkbox"/>                               |      |      |     |   |                   |   |             |              |              |  |  |
| Process <input type="checkbox"/>                             |      |      |     |   |                   |   |             |              |              |  |  |
| Supplier <input type="checkbox"/>                            |      |      |     |   |                   |   |             |              |              |  |  |
| Training <input type="checkbox"/>                            |      |      |     |   |                   |   |             |              |              |  |  |
| Unapproved <input type="checkbox"/>                          |      |      |     |   |                   |   |             |              |              |  |  |

| FAULT CATEGORY  |  |  |   |  |  |   |  |  |  |  |   |  |
|---|--|--|---|--|--|---|--|--|--|--|---|--|
| <b>Landing Gear</b><br><input type="checkbox"/> Bending<br><input type="checkbox"/> Centre Not Concentric to O/S<br><input type="checkbox"/> Cracks<br><input type="checkbox"/> Crushed/Crimped<br><input type="checkbox"/> Cuffs<br><input type="checkbox"/> Heat Treat<br><input type="checkbox"/> Inspection Strip in Tube<br><input type="checkbox"/> Ripples in Bend<br><input type="checkbox"/> Torque Waves in Extrusion<br><input type="checkbox"/> Turning Sequence<br><input type="checkbox"/> Wave/Twist in Tube |  |  | <b>General</b><br><input type="checkbox"/> Bend<br><input type="checkbox"/> BOM/Route<br><input type="checkbox"/> Broken/Damaged<br><input type="checkbox"/> Burrs<br><input type="checkbox"/> Contamination<br><input type="checkbox"/> Countersink<br><input type="checkbox"/> Cut Too Short<br><input type="checkbox"/> Drill Holes<br><input type="checkbox"/> Drawing<br><input type="checkbox"/> Finish<br><input type="checkbox"/> Folio |  |  | <input type="checkbox"/> Grain<br><input type="checkbox"/> Hardware<br><input type="checkbox"/> Inspection Incomplete<br><input type="checkbox"/> Instructions Incomplete/Unclear<br><input type="checkbox"/> Maintenance<br><input type="checkbox"/> Mislabeled<br><input type="checkbox"/> Misread<br><input type="checkbox"/> Offset<br><input type="checkbox"/> Out of Calibration<br><input type="checkbox"/> Out of Sequence<br><input type="checkbox"/> Outside Dimensions |  |  | <input type="checkbox"/> Ovalized<br><input type="checkbox"/> Over/Under tolerance<br><input type="checkbox"/> Part Incorrect<br><input type="checkbox"/> Part Lost/Missing<br><input type="checkbox"/> Part Moved<br><input type="checkbox"/> Positioned Wrong<br><input type="checkbox"/> Power Loss/Surge |  | <input type="checkbox"/> Pressure/Forced<br><input type="checkbox"/> Temperature/Cure<br><input type="checkbox"/> Weld<br><input type="checkbox"/> Wrong Stock Pulled<br><input type="checkbox"/> Other |  |



**TO AMEND INSTALLATION INSTRUCTIONS D350-578 REV. F OR EARLIER  
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D350-578 REV. 1 OR EARLIER**

REF. TCCA STC: SH93-4  
REF. FAA STC: SR00028NY  
REF. FAA STC: SR00029NY  
REF. EASA STC: EASA.IM.R.S.01389  
REF. ARGENTINA STC: CTS-0508.13(A)

Customers with old style bearpaws will need to rework the counterbore on the bottom of the bearpaws per Figure 1 on Sheet 2 of this service instruction.

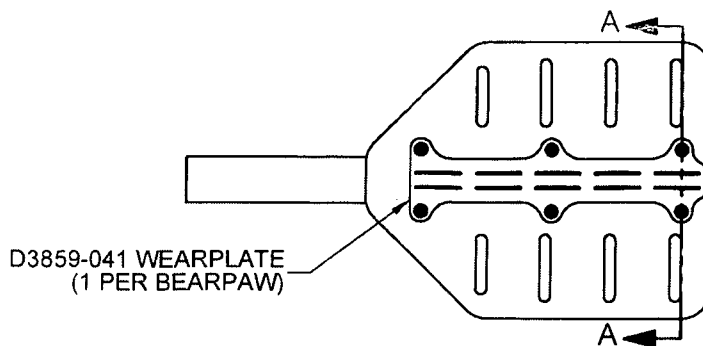
| Installation                  | Weight             | Lateral         |                       | Longitudinal       |                          |
|-------------------------------|--------------------|-----------------|-----------------------|--------------------|--------------------------|
|                               |                    | Arm             | Moment                | Arm                | Moment                   |
| D350-578-031<br>Wearplate Kit | 3.00 lb<br>1.36 kg | 0.0 in<br>0.0 m | 0.0 in-lb<br>0.0 m-kg | 157.0 in<br>3.99 m | 471.0 in-lb<br>5.43 m-kg |

| <b>QTY.<br/>-031</b> | <b>PART NUMBER</b>  | <b>DESCRIPTION</b>   |
|----------------------|---------------------|----------------------|
| <b>X</b>             | <b>D350-578-031</b> | <b>Wearplate Kit</b> |
|                      |                     |                      |
| 2                    | D3859-041           | Wearplate            |
| 12                   | AN4-17A             | Bolt                 |
| 12                   | NAS1149D0463J       | Washer               |
| 12                   | MS21042L4           | Nut or (MS21042-4)   |

12-12-20

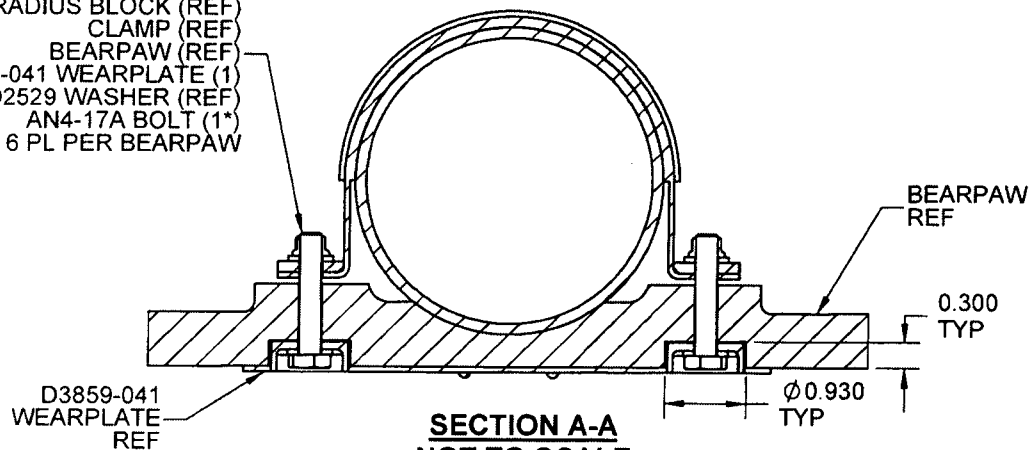
DATE: 09.01.15  
CERT. NO.: SH93-4  
ISSUE NO.: 7

|            |                                |  |              |
|------------|--------------------------------|--|--------------|
| A          | NEW ISSUE                      |  | 09.01.15     |
| REV.       | DESCRIPTION                    |  | BY DATE      |
| DESIGN     | <del>55</del><br><del>55</del> | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA   |              |
| DRAWN      |                                |  |              |
| CHECKED    | B                              | DRAWING NO.  | REV. A       |
| MFG. APPR. | N/A                            | DSI 9429   | SHEET 1 OF 2 |
| APPROVED   | 149                            | TITLE  | SCALE        |
| DE APPR.   | <del>149</del>                 | WEARPLATE KIT  | NTS          |
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**BOTTOM VIEW**

- MS21042L4 NUT(1)
- NAS1149D0463J WASHER (1\*)
- D2274 RADIUS BLOCK (REF)
- CLAMP (REF)
- BEARPAW (REF)
- D3859-041 WEARPLATE (1)
- D2529 WASHER (REF)
- AN4-17A BOLT (1\*)
- 6 PL PER BEARPAW



**SECTION A-A**  
**NOT TO SCALE**  
**ROTATED 90° CW**

\* ADDITIONAL NAS1149D0463J WASHERS MAY BE INSTALLED UNDER NUTS TO ENSURE 1.5 - 4 THREADS IN SAFETY ON BOLTS. ALTHOUGH NOT GENERALLY NECESSARY, IT IS ALSO ACCEPTABLE TO REPLACE THE AN4-17A BOLTS WITH LONGER OR SHORTER AN4 BOLTS, IF REQUIRED.

**FIGURE 1: D350-578-031 WEARPLATE KIT**

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED

BY: *[Signature]*  
D. SHEPHERD (DE # 02)

DATE: 09.01.15  
CERT. NO.: SH93-4  
ISSUE NO.: 7

|            |                    |  |              |
|------------|--------------------|--|--------------|
| DESIGN     | <i>[Signature]</i> | <b>DART AEROSPACE LTD</b>  |              |
| DRAWN      | <i>[Signature]</i> | HAWKESBURY, ONTARIO, CANADA  |              |
| CHECKED    | <i>[Signature]</i> | DRAWING NO.  | REV. A       |
| MFG. APPR. | N/A                | DSI 9429   | SHEET 2 OF 2 |
| APPROVED   | <i>[Signature]</i> | TITLE  | SCALE        |
| DE APPR.   | <i>[Signature]</i> | WEARPLATE KIT  | NTS          |
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Releena Ghy Smb

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-578 REV. F OR EARLIER  
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D350-578 REV. 1 OR EARLIER  
REF. TCCA STC: SH93-4  
REF. FAA STC: SR00028NY  
REF. FAA STC: SR00029NY  
REF. EASA STC: EASA.IM.R.S.01389  
REF. ARGENTINA STC: CTS-0508.13(A)

The D350-578-031 Wearplate kit can be installed on D350-578-011/-021 Bearpaw installations.  
The D3859-041 Wearplates should be installed on the D2432F or D2672F Bearpaws as shown in  
Figure 1 on Sheet 2 of this Service Instruction. The Bearpaws should otherwise be installed on the  
skidtube per installation instructions D350-578 Rev F or earlier.

Customers with old style bearpaws will need to rework the counterbore on the bottom of the  
bearpaws per Figure 1 on Sheet 2 of this service instruction.

## WEIGHT AND BALANCE

| Installation                  | Weight             | Lateral         |                       | Longitudinal       |                          |
|-------------------------------|--------------------|-----------------|-----------------------|--------------------|--------------------------|
|                               |                    | Arm             | Moment                | Arm                | Moment                   |
| D350-578-031<br>Wearplate Kit | 3.00 lb<br>1.36 kg | 0.0 in<br>0.0 m | 0.0 in-lb<br>0.0 m-kg | 157.0 in<br>3.99 m | 471.0 in-lb<br>5.43 m-kg |

## PARTS LIST

| QTY.<br>031 | PART NUMBER   | DESCRIPTION        |
|-------------|---------------|--------------------|
| X           | D350-578-031  | Wearplate Kit      |
| 2           | D3859-041     | Wearplate          |
| 12          | AN4-17A       | Bolt               |
| 12          | NAS1149D0463J | Washer             |
| 12          | MS21042L4     | Nut or (MS21042-4) |

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED  
BY:   
D. SHEPHERD (DE # 02)

DATE: 09.01.15  
CERT. NO.: SH93-4  
ISSUE NO.: 7

|            |   |  |              |
|------------|---|--|--------------|
| A          | NEW ISSUE   |   | 09.01.15     |
| REV.       | DESCRIPTION   | BY   | DATE         |
| DESIGN     |  | DART AEROSPACE LTD   |              |
| DRAWN      |  | HAWKESBURY, ONTARIO, CANADA  |              |
| CHECKED    |  | DRAWING NO.  | REV. A       |
| MFG. APPR. | N/A   | DSI 9429   | SHEET 1 OF 2 |
| APPROVED   |  | TITLE  | SCALE        |
| DE APPR.   |  | WEARPLATE KIT  | NTS          |
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